Application Serial No.: 10/022,481
Response dated February 5, 2004
Reply to Office Action of November 5, 2003
Page 3 of 12

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 23-31 and 33 are withdrawn.

Claim 1 (currently amended) A method for detecting an unbound form of a first member of a binding pair, the binding pair comprising a first and second member, each member bindable to the other, the method comprising the steps of:

- (a) providing a first particle bound to the second member;
- (b) reacting the first particle bound to the second member with a sample, thereby forming a first complex between the second member bound to the first particle and unbound first member present in said sample;
- (c) providing a second particle bound to a third member, the third member being different from the second member and being capable of binding to the first member;
- (d) reacting the second particle bound to the third member to-with the sample, thereby forming a second complex between the third member bound to the second particle and the first complex; and
- (e) detecting any second complex formed by determining turbidity or agglutination.
- Claim 2 (previously presented) The method of claim 1, wherein the third member is an antibody which specifically binds to the first member.

Claim 3 (currently amended) The method of claim 1, wherein at least one of the first and/or second particle is comprises latex.

Application Serial No.: 10/022,481
Response dated February 5, 2004

Reply to Office Action of November 5, 2003

Page 4 of 12

Claim 4 (previously presented) The method of claim 1, wherein the second complex is detected by measuring an increase in the turbidity of the sample.

Claim 5 (previously presented)

The method of claim 1, wherein steps (a) through (d) are

performed sequentially.

Claim 6 (previously presented)

The method of claim 1, wherein steps (a) through (d) are

performed simultaneously.

Claim 7 (previously presented)

The method of claim 1, wherein the amount of second

complex formed is quantitated.

Claim 8 (previously presented)

The method of claim 1, wherein the first member is protein

S. .

Claim 9 (previously presented)

The method of claim 1, wherein the second member is C4b-

binding protein (C4BP).

Claim 10 (previously presented) The method of claim 1, wherein the sample is selected from the group consisting of blood, plasma, serum, saliva, CSF, urine, culture media, a cell suspension, a buffer and an artificially prepared fluid containing the first member.

Claim 11 (previously presented) The method of claim 1, wherein the second member binds to the first member at a single binding site.

Claim 12 (previously presented) The method of claim 11, wherein the third member binds to the first member at a single binding site which is different from the single binding site to which the second member binds.

Claim 13 (previously presented)

The method of claim 1, wherein step (b) is performed

within 0 to about 180 seconds.

Application Serial No.: 10/022,481 Response dated February 5, 2004

Reply to Office Action of November 5, 2003

Page 5 of 12

Claim 14 (currently amended)

The method of claim 1, wherein the molar ratio of third member to and the second member are in a molar ratio of the between about 2 and 20.

Claim 15 (currently amended) The method of claim 1, wherein the molar ratio of the third member to and the second member are in a molar ratio of the between about 5 and 10.

Claim 16 (currently amended) The method of claim 1, wherein the amount of third member is present in an amount that is higher than thean amount of the free first member is in the sample.

Claim 17 (currently amended) The method of claim 1, wherein the molar ratio of third member and the free first member in the sample are in a molar ration of between about 10 and 40 times the amount of free first member in the sample.

Claim 18 (currently amended) A composition for detecting an unbound form of a first member of a binding pair, the binding pair comprising a first and <u>a</u> second member, each member bindable to the other, the composition comprising:

a first particle bound to the second member;

a second particle bound to a third member, the third member being different from the second member and capable of binding to the first member at a binding site different from the second member, wherein the first member comprises protein S and the second member comprises C4BP.

Claim 19 (previously presented) The composition of claim 18, wherein the first member is protein S and the second member is C4BP.

Claim 20 (previously presented) The composition of claim 18, wherein the third member is an antibody and the second member is not an antibody.

Application Serial No.: 10/022,481 Response dated February 5, 2004 Reply to Office Action of November 5, 2003 Page 6 of 12

Claim 21 (previously presented) The composition of claim 18, wherein the second member comprises a single binding site for the first member.

Claim 22 (currently amended) The composition of claim 21, wherein the third member binds to the first member at a single binding site which is different from the single binding site to which the second member binds.

Claim 32 (previously presented) A method for diagnosing thrombophilia comprising performing the method of claim 8, and further comprising comparing the amount of second complex formed to the amount of second complex formed in a sample derived from an individual without thrombophilia.